Budget Transparency and Accountability Act

Nisga'a Highway

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BRITISH COLUMBIA

Ministry of Transportation

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Executive Summary

The Nisga'a Highway project will upgrade an existing gravel resource road in the Nass Valley. The road is a vital connection between three Nisga'a communities, linking them with Terrace and the provincial highway network.

The Ministry of Transportation assumed responsibility of this former logging road from the Ministry of Forests in the spring, 1990. The road's construction is consistent with a logging road standard, but is not appropriate for a public road. It is also subject to flooding closures from the Nass River and its tributaries.

The project, underway through an agreement between the BC Transportation Financing Authority and the Nisga'a Nation, will upgrade approximately 93 kilometres of existing gravel road to a 70-kilometre-per-hour, two-lane, paved highway. The improved route will permit heavy trucks to operate year-round at their full legal load.

The project will cost less than $52 million, and is scheduled for completion by the end of the 2005 construction season. Already completed portions of the project have provided a good basis for cost-estimating the remainder of the work, minimizing the risk of cost over-runs.

The upgraded highway will provide a vital transportation link for approximately 3,000 Nass Valley residents and is expected to play an important role in economic development for the surrounding region.

Project Objectives

The Project:

The project will upgrade an existing gravel resource road that has two 'legs', one running from Sand Lake to Greenville and the other from Sand Lake to New Aiyansh and to Nass Camp. The upgrade will bring the route to a Ministry of Transportation standard that is appropriate for the type of vehicle and traffic volumes it experiences. The justification for undertaking this project appears in the project agreement between the BC Transportation Financing Authority and Nisga'a Nation referred to as "Nisga'a Highway".

Background:

The Ministry of Transportation took over the responsibility for the Nisga'a Highway from the Ministry of Forests in the spring of 1990. The road is a vital connection between three Nisga'a communities in the Nass Valley, linking them with Terrace and the rest of the provincial highway network. At the time of transfer, the road's standard was consistent with a mainline logging road. Its width, horizontal and vertical alignment did not meet the normal standards for a public highway, and its structure did not support legally-loaded vehicle weights on a year round basis. The road was also subject to flooding and closures caused by high run-off or ice jams on the Nass River.

Upgrading the Nisga'a Highway became an obligation for the Province when the Nisga'a Tribal Council, British Columbia and Canada entered into an Agreement in Principle dated February 15, 1996 (AIP). In the early summer of 1998, the three parties involved completed detailed negotiations for the Nisga'a Final Agreement which, when ratified, became a treaty and land claims agreement. Under the AIP, the Nisga'a Nation was to own all roads within Nisga'a Lands, including the Nisga'a Highway, while the Province of British Columbia would hold a right-of-way for the purpose of constructing and operating public highways. However, during Nisga'a Final Agreement negotiations the Nisga'a Tribal Council agreed that British Columbia would own the Nisga'a Highway corridor. The Province of British Columbia, through the BC Transportation and Funding Authority (BCTFA), and the Nisga'a Tribal Council then entered into a formal written project agreement to upgrade and pave the corridor.

Objectives:

The project will upgrade approximately 93 kilometres of the Nisga'a Highway from Sand Lake to Greenville, and from Sand Lake to New Aiyansh and to Nass Camp. The existing gravel resource road will become a 70-kilometre per hour, two-lane paved highway with a 3.6-metre lane-width and 0.5-metre paved shoulders. The upgraded route will allow heavy trucks to operate at 100 per cent legal loading weight year round.

Two deteriorated wooden bridge structures have been replaced, and two additional new bridge structures will be constructed to address issues related to fisheries sensitive zones.

Timeframe:

The project will be completed no later than the end of the construction season in 2005, which is seven years after the Nisga'a Tribal Council ratified the Final Agreement.

Costs and Benefits of the Project

Costs:

The project's current estimated budget is $51.92 million, broken down as follows:

Project Management	$0.492 million
Engineering	$2.037 million
Environmental	$0.513 million
Construction	$36.478 million
Paving	$10.125 million
Contingency	$2.275 million
TOTAL	$51.92 million

The project can also be broken down into seven segments:

Segment Name	Segment Length	Current Cost Estimate
Sand Lake to South End of Lava Lake	~ 5.0 km	$3.783 M
South End of Lava Lake to North End of Lava Lake	~10.0 km	$11.613 M
Lava Beds	~32.0 km	$7.345 M
W.D. McKay Bridge to Zaulzap Creek	~22.5 km	$16.193 M
Nass Bridges		$1.459 M
W.D. McKay Bridge to Greenville	~10.8 km	$6.087 M
Lava Beds to Nass Camp	~11.0 km	$5.440 M
TOTAL Current Cost Estimate		$51.920 M

Benefits:

The upgrading was an integral instrument in the ratification of the Final Agreement between the Nisga'a Tribal Council, British Columbia and Canada. The Nisga'a Highway Upgrade Project provides an integral transportation link essential to the economic development of the Nass Valley's forest, pine mushroom harvest and tourism sector industries.

The upgrade will create economic opportunities both during and after construction. Qualified Nass Valley residents will have opportunities for employment directly on the project and indirectly through spin off jobs in the goods, transport and service businesses that support the project. The upgraded route will allow residents to travel more quickly, with increased safety, reduced vehicle operating costs and more reliability. The improved highway will also encourage visitors to travel into the area, creating opportunities for new economic development and growth.

The existing Nisga'a Highway serves a resident population of about 3,000. While it also carries a relatively high proportion of industrial traffic, overall traffic volumes are low. This means the travel cost-savings and safety benefits are not significant factors in determining the benefits of the project.

Improved access to resources and the potential economic opportunities supported by a more efficient, reliable transportation link is a more obvious benefit arising from the highway upgrade. During negotiations the three parties involved agreed that the improvements to this highway will increase economic opportunities for the residents of the Nass Valley. By using local workers and contractors, the project will further enhance future economic growth by creating a skilled work force for future projects.

Risks Associated With the Costs and Benefits:

Risks Associated with Costs:

Designing and implementing any highway project carries the risk of underestimating the capital costs. Various factors can contribute to this problem, including:

- — cost over-runs caused by design or construction difficulties;
- — cost over-runs involving material costs and delivery schedules;
- — cost over-runs associated with environmental mitigation;
- — inflation; and
- — cost over-runs arising from unanticipated administration/construction premium charges.

Currently, 80 per cent of the Nisga'a Highway upgrade project has been designed. The remaining design work is for sections of the project that are not technically complex. The existing design team has the necessary experience and technical skills to manage the issues and effectively manage the risk associated with the remaining design work. Consequently, design risk is low.

The work currently underway has the greatest potential for construction difficulties. It involves major realignment, including rockcuts and the construction of a large embankment into a lake. The costs for this construction work are proving to be less than originally estimated, and there have been no construction difficulties so far. Contingency plans are in place to compensate for any difficulties that could develop. The sections for future construction are not as complex. Construction activities in these areas will primarily involve minor realignments, gravelling and paving of the existing highway. Recent engineering data suggests the project risk for these sections is low.

The risk of cost over-runs associated with delivery schedule slippage is also low, because work is currently on schedule.

The risk of cost over-runs associated with materials is primarily related to liquid asphalt prices which have been affected by the recent rises in world oil prices. This risk was factored into the budget through price scaling and by incorporating financial contingencies to cover unforeseen circumstances.

The risk of cost over-runs associated with environmental mitigation works was addressed by comprehensive design work and the assigning of appropriate financial contingencies.

The risk of inflation significantly affecting the total capital cost was addressed by allotting contingency funds based on relevant economic analyses.

Risks associated with unanticipated administration and construction premium charges were virtually eliminated by recent structural and policy changes with the Ministry of Transportation.

Project cost will not be exceeded because a portion of the work has been completed within the budget, and enough contingencies have been incorporated into the budget to address the remaining works.

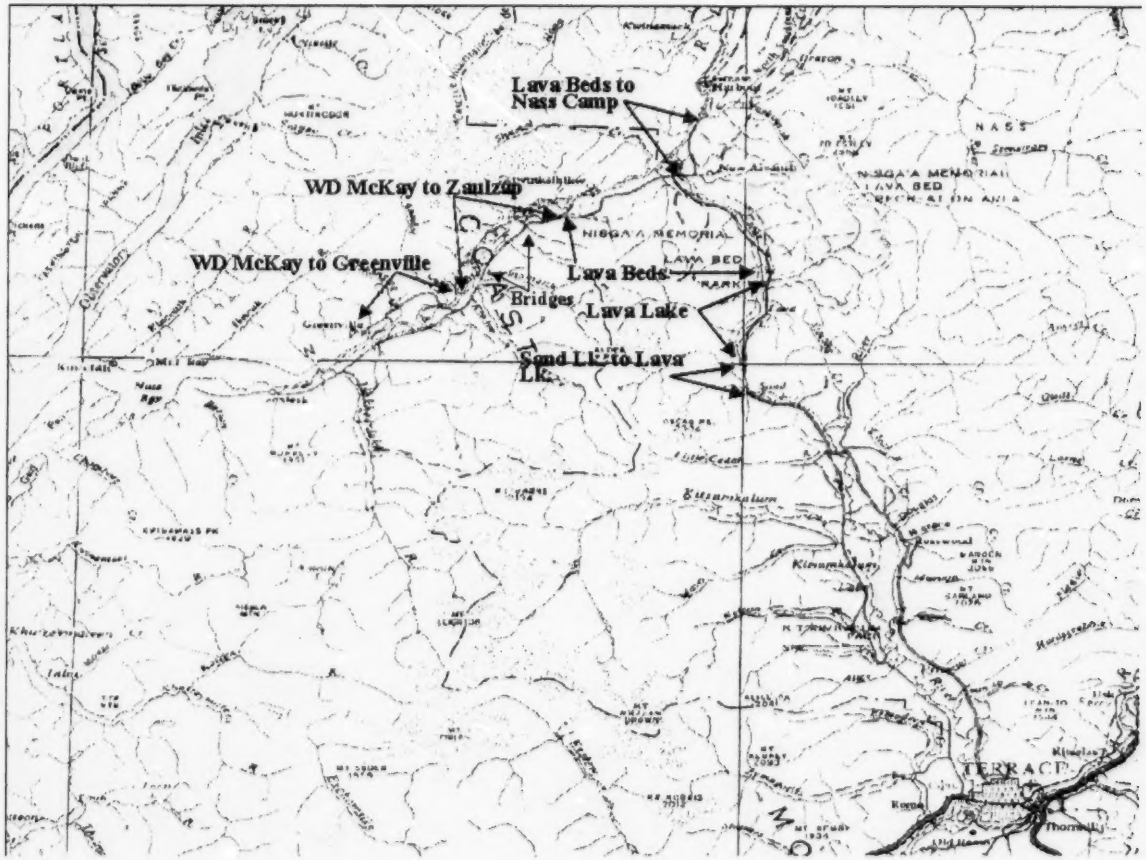
Risks Associated with Benefits:

There are a number of benefits associated with the upgrade, including economic opportunities during construction and economic development opportunities incorporating the use of the new infrastructure after construction. The highway project agreement also contributed to the ratification of the Nisga'a Treaty.

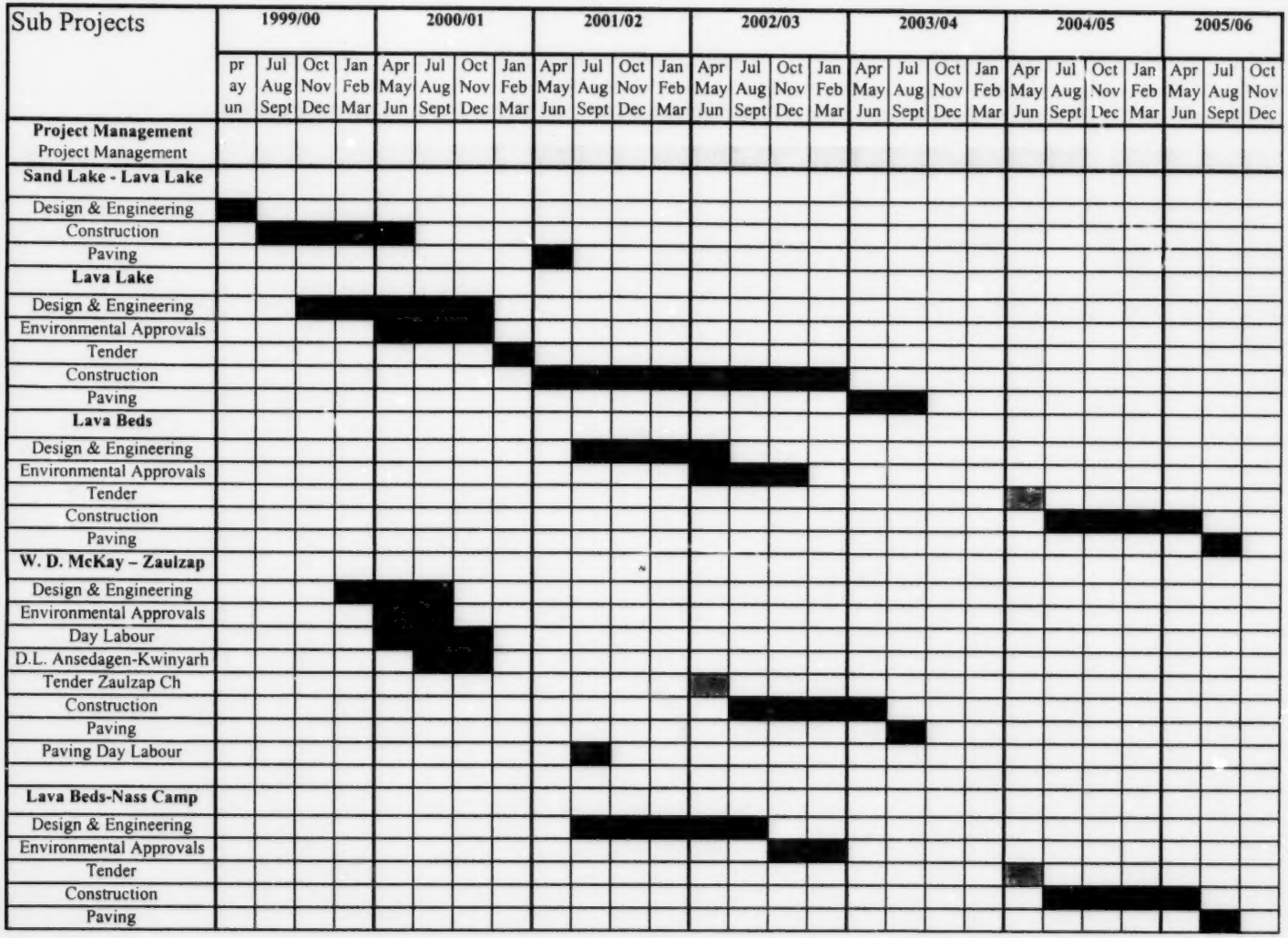
The Nisga'a Highway Project Agreement's objective of supporting the treaty-making process has already been met. It is difficult to accurately quantify potential benefits in terms of economic contributions, but clearly the dramatic improvement in the transportation infrastructure arising from the project will create economic opportunities throughout the region.

Appendices

Map of Project Area



Nisga'a Highway Upgrade Schedule



Nisga'a Highway Upgrade Schedule continued

Sub Projects	1999/00				2000/01				2001/02				2002/03				2003/04				2004/05				2005/06		
	pr ay un	Jul Aug Sept	Oct Nov Dec	Jan Feb Mar	Apr May Jun	Jul Aug Sept	Oct Nov Dec	Jan Feb Mar	Apr May Jun	Jul Aug Sept	Oct Nov Dec	Jan Feb Mar	Apr May Jun	Jul Aug Sept	Oct Nov Dec	Jan Feb Mar	Apr May Jun	Jul Aug Sept	Oct Nov Dec	Jan Feb Mar	Apr May Jun	Jul Aug Sept	Oct Nov Dec	Jan Feb Mar	Apr May Jun	Jul Aug Sept	Oct Nov Dec
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W D McKay – Greenville																											
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